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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,889	09/22/2003	Juan R. Guerrero	3565-6	4269

23117 7590 11/04/2005

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EXAMINER

OROPEZA, FRANCES P

ART UNIT PAPER NUMBER

3766

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,889

Applicant(s)

GUERRERO ET AL.

Examiner

Frances P. Oropeza

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/22/03 (Initial Filing).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/22/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter that the Applicant regards as his invention.

Claims 22-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

Claim 22 is unclear because it appears in lines 2-3 “operable digitize” should be -- operable to digitize--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Palmer et al. (US 5830150). Palmer et al. disclose a method for monitoring and displaying an ECG, the format of the data time compressed to indicate abnormalities (abstract; col. 1 @ 33-38 and 59-63; col. 2 @ 41-65; col. 4 @ 35-47; col. 6 @ 22-54).

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4. Claims 22-24, 26, 30 and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Moore et al. (US 4633881). Moore et al. disclose a system for analyzing biological signals in time intervals by displaying them on a screen and varying the compression of the time, read as the X axis, and varying the compression of the EMF, read as the Y axis, to gain an optimum signal presentation for the identification of the cardiac dysfunction or arrhythmias. Signals are inherently adjustable at the microvolt and microsecond level (figures 1 and 2; col. 3 @ 54 – col. 4 @ 17; col. 5 @ 54-64; col. 6 @ 18-37; figure 8 – (188); col. 8 @ 7-35).

As to claims 23 and 32, the signal, an electrocardiogram, is analyzed to identify arrhythmias (col. 1 @ 52-55).

As to claims 24 and 26, signals from each channel are optimized by the preamplifier/amplifier (figure 2 – 38 and figure 4 – 86, 100, 108).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint Inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. The Applicant is advised of the obligation under 37 CFR 1.56 to point out the Inventor and invention dates of each claim that was not commonly owned at the time a

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later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 25, 27-29, 31 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore et al. (US 4633881) in view of Mohler (US 6053872). As discussed in paragraph 4 of this action, Moore et al. disclose the claimed invention except for a library of patterns (claim 25) and a phonocardiogram monitoring system including a phonocardiogram (claim 37), a computer sound card (claim 31) and audio processing software (claim 29), sampling at 44,100 Hertz (claim 27) and digitizing using quantization of at least 16 bits per sample per channel (claim 28).

As to the library of patterns, Mohler teaches cardiac signal analysis using a library of patterns for the purpose of determining if the features contained within the monitored signal match known disease modalities. It would have been obvious to one having ordinary skill in the art at the time of the invention to have used the library of patterns in the Moore et al. system in order to diagnose cardiovascular disease early so intervention can be undertaken as needed to promote the optimum health of the patient (col. 15 @ 21-32; col. 1 @ 10-16).

As to the phonocardiogram monitoring system, Mohler teaches cardiac signal analysis using a sound card with audio processing software, sampling at 44,100 Hertz and digitizing at 16 bits per sample per channel to define the patient's phonocardiogram for the purpose of recording physiological signals that relate to the heart and associated vessels so the system can process the signals and identify cardiac artery disease. It would have been obvious to one having ordinary skill in the art at the time of the invention to have used a phonocardiogram monitoring system

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(sound card/ audio processing software/ 44,100 Hertz/ 16 bits per sample per channel) in the Moore et al. system in order to provide an alternate sensed parameter, sounds related to the cardiac system, giving additional and confirming data with the electrocardiogram so the cardiac artery disease is diagnosed early and intervention can be undertaken as needed to promoted optimum patient health (abstract; col. 14 @ 9-12 and 41-43; col. 15 @ 1-16; col. 1 @ 10-16; col. 3 @ 7-27).

7. Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore et al. (US 4633881) in view of Dorfmeister et al. (US 5995868). As discussed in paragraph 5 of this action, Moore et al. disclose the claimed invention except for monitoring an electroencephalogram or a myogram signal.

Dorfmeister et al. teach predictive/ preventative medicine using signals including an electrocardiogram, an electroencephalogram, and myogram for the purpose of defining the present activity in the heart, brain, and/ or musculature to predict a change in the activity state in the body. It would have been obvious to one having ordinary skill in the art at the time of the invention to have added monitoring of an electroencephalogram and a myogram in the Moore et al. system in order to gain a more comprehensive picture of the patient's health and further be able to anticipate adverse changes in the heart, brain and/ or musculature, so responses are provided to prevent or abate the condition (abstract; col. 14 @ 35-51).

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Claim Objections

8. Claim 27 is objected to because it appears "44,100Hz" should contain a space and claim 30 is objected to because it appears "asses" should be --access--. Appropriate correction is required.

Specification


9. The specification is objected to because in the first paragraph of the specification noted in the Preliminary Amendment of 9/22/03, the application 10/078355 should be indicated abandoned.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fran Oropeza whose telephone number is (571) 272-4953. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communication and for After Final communications.

Frances P. Oropeza
Patent Examiner
Art Unit 3766

FPO
10/25/05


Robert E. Pezzuto
Supervisory Patent Examiner
Art Unit 3766